

## Plastic Mold Infrared LEDs

### KED941M51B

#### Characteristics

- Transparent epoxy mold
- Direct modulation

#### Applications

- Optical switches
- Optical instruments
- Automatic control apparatus

#### Chip Material

- GaAlAs

#### Package

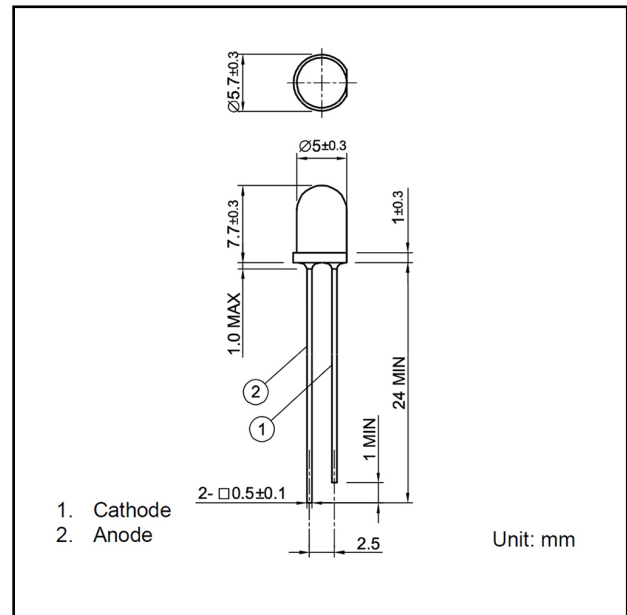
- MOLD

#### Diameter

- 5mm

#### Resin Type

- clear



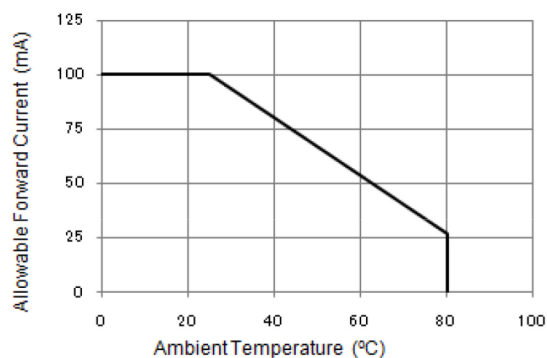
## Absolute Maximum Ratings

Parameter	Symbol	Value	Unit	Conditions
Reverse voltage	$V_R$	6	V	-
Forward current	$I_F$	100	mA	-
Peak forward current	$I_{FP}$	1	A	Pulse width=100 $\mu$ s Duty ratio=1%
Power dissipation	$P_D$	150	mW	-
Operating temperature	$T_{opr}$	-20 to +80		Avoid dew condensation
Storage temperature	$T_{stg}$	-30 to +100		Avoid dew condensation
Soldering temperature	$T_{sol}$	260		Soldering time less than 5 seconds

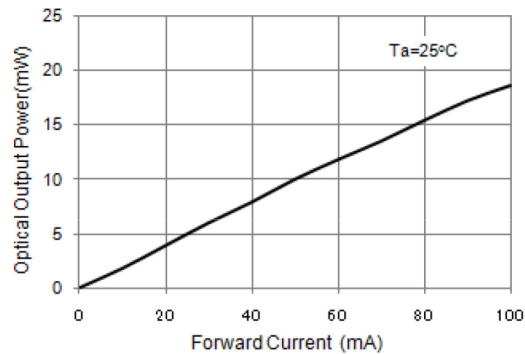
Electrical and Optical characteristics (T<sub>a</sub>=25 unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse Current	$I_R$	-	-	10	$\mu$ A	$V_R=6V$
Forward voltage	$V_F$	-	1.3	1.6	V	$I_F=50mA$
Optical output power	$P_O$	-	10	-	mW	$I_F=50mA$
Peak wavelength	$\lambda_p$	-	940	-	nm	$I_F=50mA$
Spectral width		-	50	-	nm	$I_F=50mA$
Half angle	$2\theta$	-	28	-	deg.	$I_F=50mA$

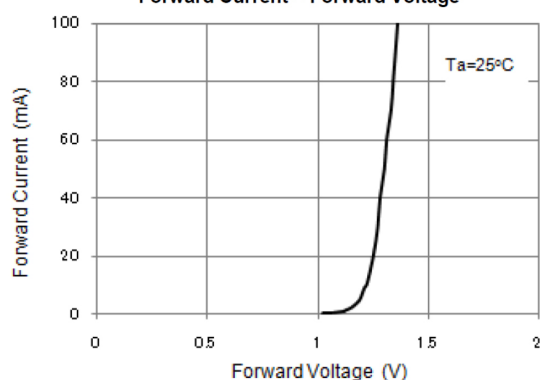
Allowable Forward Current – Ambient temperature



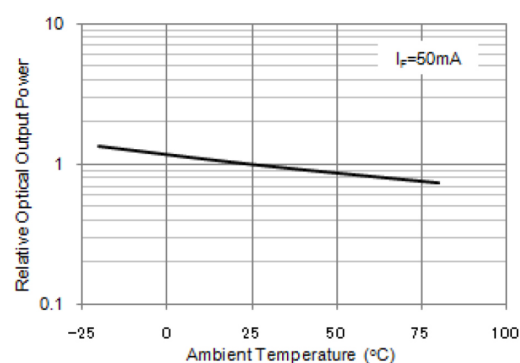
Optical Output Power – Forward Current



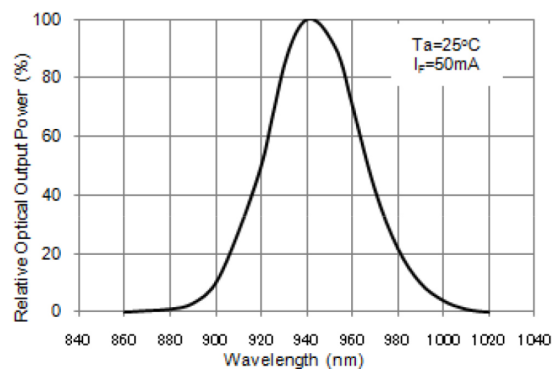
Forward Current – Forward Voltage



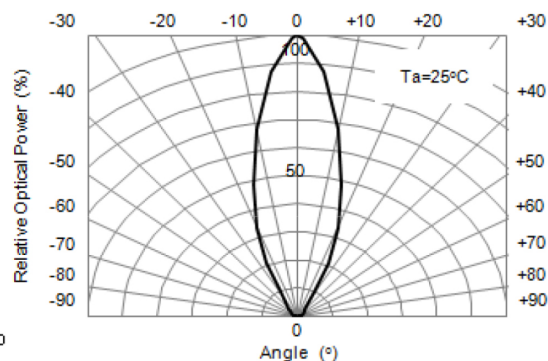
Relative Optical Output Power – Ambient Temperature



Spectral Distribution



Directivity



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